



PTO/SB/08A (08-03)

Substitute for Form PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 16

Complete if Known

Application Number	10/045,132
Filing Date	October 23, 2001
First Named Inventor	B. Scott Driggs
Art Unit	3754
Examiner Name	Eric S. Keasel
Attorney Docket Number	20174C-002910US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
ER	A1	US-3,570,515	03-16-1971	Kinner	
✓	A2	US-3,747,628	07-24-1973	Holster et al.	
	A3	US-4,046,159	09-08-1977	Pegourle	
	A4	US-4,119,368	10-10-1978	Yamakazi	
	A5	US-4,153,855	05-08-1979	Feingold	
	A6	US-4,245,673	01-20-1981	Bouteille et al.	
	A7	US-4,373,527	02-15-1983	Fischell	
	A8	US-4,399,219	08-16-1983	Weaver	
	A9	US-4,434,704	03-06-1984	Surjaatmadja	
	A10	US-4,575,681	03-11-1986	Grosso et al.	
	A11	US-4,662,710	05-05-1987	ten Berge	
	A12	US-4,898,582	02-06-1990	Faste	
	A13	US-4,992,312	02-12-1991	Frisch	
	A14	US-5,085,562	02-04-1992	Van Lintel	
	A15	US-5,088,515	02-18-1992	Kamen	
	A16	US-5,096,388	03-17-1992	Weinberg	
	A17	US-5,126,115	06-30-1992	Fujita et al.	
	A18	US-5,184,558	11-17-1992	Huff et al.	
	A19	US-5,171,132	12-15-1992	Miyazaki	
	A20	US-5,224,843	07-06-1993	Van Lintel	
	A21	US-5,259,737	11-09-1993	Kamisuki et al.	
✓	A22	US-5,265,327	11-30-1993	Faris et al.	
	A23	US-5,290,240	03-01-1994	Horres, Jr.	
ER	A24	US-5,336,062	08-09-1994	Richter	

Examiner
Signature

Eric S. Keasel

Date
Considered

1 SEP 2006

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet **2** of **16****Complete if Known**

Application Number	10/045,132
Filing Date	October 23, 2001
First Named Inventor	B. Scott Driggs
Art Unit	3754
Examiner Name	Eric S. Keasel
Attorney Docket Number	20174C-002910US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
FK	A25	US-5,346,372	09-13-1994	Naruse et al.	
↑	A26	US-5,375,979	12-27-1994	Trah	
	A27	US-5,400,741	03-28-1995	DeTitta et al.	
	A28	US-5,423,287	06-13-1995	Usami et al.	
	A29	US-5,529,465	06-25-1996	Zengerle et al.	
	A30	US-5,574,893	11-12-1996	Southgate et al.	
	A31	US-5,593,130	01-14-1997	Hansson et al.	
	A32	US-5,642,015	06-24-1997	Whitehead et al.	
	A33	US-5,656,155	08-12-1997	Norcross et al.	
	A34	US-5,659,171	08-19-1997	Young et al.	
	A35	US-5,660,370	08-26-1997	Webster	
	A36	US-5,665,070	09-09-1997	McPhee	
	A37	US-5,681,024	10-28-1997	Lise et al.	
	A38	US-5,705,018	01-06-1998	Hartley	
	A39	US-5,759,014	06-02-1998	Van Lintel	
	A40	US-5,775,371	07-07-1998	Pan et al.	
	A41	US-5,788,468	08-04-1998	Dewa et al.	
	A42	US-5,842,787	12-01-1998	Kopf-Sill et al.	
	A43	US-5,854,684	12-29-1998	Stabile et al.	
	A44	US-5,875,817	03-02-1999	Carter	
	A45	US-5,876,187	03-02-1999	Afromowitz	
↓	A46	US-5,932,799	08-03-1999	Moles	
	A47	US-5,942,443	08-24-1999	Parce et al.	
FK	A48	US-5,997,961	12-07-1999	Feng et al.	

Examiner
Signature

Eric Keasel

Date
Considered

1 SEP 2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
Examiner Name	Eric S. Keasel				
Sheet	3	of	16	Attorney Docket Number	20174C-002910US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
EK ↑	A49	US-6,043,080	03-28-2000	Lipshutz et al.	
	A50	US-6,123,769	09-26-2000	Sanjoh	
↓	A51	US-6,155,282	12-05-2000	Zachary et al.	
	A52	US-6,174,365 B1	01-16-2001	Sanjoh	
	A53	US-6,246,330 B1	06-12-2001	Nielsen	
	A54	US-6,296,673 B1	10-02-2001	Santarsiero et al.	
	A55	US-2001-0027745 A1	10-11-2001	Weigl et al.	
	A56	US-6,329,209 B1	12-11-2001	Wagner et al.	
	A57	US-2002-0005354 A1	01-17-2002	Spence et al.	
	A58	US-2002-0014673 A1	02-07-2002	Leedy	
	A59	US-6,345,502 B1	02-12-2002	Tai et al.	
	A60	US-6,358,387 B1	03-19-2002	Kopf-Sill et al.	
	A61	US-2002-0037499 A1	03-28-2002	Quake et al.	
	A62	US-2002-0045297 A1	04-18-2002	Leedy	
	A63	US-6,375,871 B1	04-23-2002	Bentsen et al.	
	A64	US-6,376,971 B1	04-23-2002	Peirine et al.	
	A65	US-2002-0058332 A1	05-16-2002	Quake et al.	
	A66	US-6,409,832 B2	06-25-2002	Weigl et al.	
	A67	US-2002-0108096 A1	08-08-2002	Lee et al.	
	A68	US-6,488,832 B2	12-03-2002	Heller	
↓	A69	US-6,488,872 B1	12-03-2002	Beebe et al.	
	A70	US-6,520,936 B1	02-18-2003	Mann	
	A71	US-6,541,071 B1	04-01-2003	Bookbinder et al.	
	A72	US-2003-0080442 A1	05-01-2003	Unger	

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
--------------------	--------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

4

of

16

Complete if Known

Application Number

10/045,132

Filing Date

October 23, 2001

First Named Inventor

B. Scott Driggs

Art Unit

3754

Examiner Name

Eric S. Keasel

Attorney Docket Number

20174C-002910US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
EK ✓	A73	US-2003-0134129 A1	07-17-2003	Lammertink et al.	
	A74	US-6,667,124 B2	12-23-2003	Suenaga et al.	
	A75	US-6,689,473 B2	02-10-2004	Guire et al.	
	A76	US-6,713,327 B2	03-30-2004	Leedy	
	A77	US-6,716,378 B2	04-06-2004	Yang et al.	
	A78	US-6,765,279 B2	07-20-2004	Leedy	
	A79	US-6,767,706 B2	07-27-2004	Quake et al.	
	A80	US-6,829,753 B2	12-07-2004	Lee et al.	
	A81	US-2004-0248167 A1	12-09-2004	Quake et al.	
	A82	US-6,847,153 B1	01-25-2005	Balizer	
	A83	US-6,866,785 B2	03-15-2005	Zare et al.	
	A84	US-2005-0065735 A1	03-24-2005	Lee et al.	
	A85	US-6,884,346 B2	04-26-2005	Zare et al.	

Examiner
Signature


Eric Keasel

Date
Considered

1 SEP 2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
Examiner Name	Eric S. Keasel				
Sheet	5	of	16	Attorney Docket Number	20174C-002910US

FOREIGN PATENT DOCUMENTS								
Examiner Initials ^a	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
EK	B1	EP	0 592 094	A2	04-13-1994	International Business Machines Corporation		<input type="checkbox"/>
	B2	EP	0 703 364	A1	03-27-1998	Fraunhofer- Gesellschaft Zur Förderung Der Angewandten Forschung E.V.		<input type="checkbox"/>
	B3	EP	0 706 004	A2	04-10-1998	Bayer Corporation		<input type="checkbox"/>
	B4	EP	0 779 438	A2	06-18-1997	Frank T. Hartley		<input type="checkbox"/>
	B5	EP	0 829 360	A2	03-18-1998	Xerox Corporation		<input type="checkbox"/>
	B6	EP	0 845 603	A1	06-03-1998	Xerox Corporation		<input type="checkbox"/>
	B7	EP	0 999 055	A2	05-10-2000	Samsung Electronics Co., Ltd.		<input type="checkbox"/>
	B8	EP	1 065 378	A2	01-03-2001	California Institute Of Technology		<input type="checkbox"/>
	B9	GB	2 097 692	A	11-10-1982	Patrick Douglas Shaw Stewart		<input type="checkbox"/>
	B10	GB	2 155 152	A	09-18-1985	Allied Corporation		<input type="checkbox"/>
	B11	GB	2 308 460	A	06-25-1997	Daewoo Electronics Co., Ltd.		<input type="checkbox"/>
	B12	WO	98/07069	A1	02-19-1998	The Regents Of The University Of Michigan		<input type="checkbox"/>
	B13	WO	99/00655	A2	01-07-1999	Immunetics		<input type="checkbox"/>
	B14	WO	99/04361	A1	01-28-1999	Diversified Scientific, Inc.		<input type="checkbox"/>
	B15	WO	99/17093	A1	04-08-1999	The Regents Of The University Of Michigan		<input type="checkbox"/>
	EK	B16	WO	99/52633	A1	10-21-1999	Luminal Technologies, L.P.	

Examiner Signature	<i>Eric S. Keasel</i>	Date Considered	1 SEP 2008
-----------------------	-----------------------	--------------------	------------

¹ EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ² Applicant's unique citation designation number (optional). ³ Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 801.04. ⁴ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁵ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁶ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁷ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
Examiner Name	Eric S. Keasel			
Sheet 6 of 16	Attorney Docket Number 20174C-002910US			

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T*
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
EX	B17	WO	00/00678	A1	01-06-2000	University Of Washington		<input type="checkbox"/>
↑	B18	WO	00/43748	A1	07-27-2000	YSI Incorporated		<input type="checkbox"/>
	B19	WO	00/60345	A1	10-12-2000	University Of Alabama At Birmingham Research Foundation		<input type="checkbox"/>
	B20	WO	01/06529	A1	01-25-2001	Moeller GmbH		<input type="checkbox"/>
	B21	WO	01/06575	A1	01-25-2001	SRI International		<input type="checkbox"/>
↓	B22	WO	01/09595	A2/A3	02-08-2001	Emerald Biostructures, Inc.		<input type="checkbox"/>
EX	B23	WO	02/82047	A2	10-17-2002	California Institute Of Technology AND The Regents Of The University Of California		<input type="checkbox"/>

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
--------------------	--------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
			Examiner Name	Eric S. Keasel	
Sheet	7	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C1	"Biochips," Nature Biotechnology, Vol. 18, Supplement 2000, pp. IT43-IT44, 2000		
↑	C2	"Chapter 9: Microfluidic Devices," Micromachined Transducers Sourcebook, pp. 779-882, 1998		
	C3	"Last Chance For Micromachines," The Economist Technology Quarterly, 8 pages, December 7, 2000		
	C4	AHN, CHONG H. et al., "Fluid Micropumps Based On Rotary Magnetic Actuators," Proceedings of 1995 IEEE Micro Electro Mechanical Systems Workshop (MEMS '95), Amsterdam, Netherlands, pp. 408-412, January 29 - February 2, 1995		
	C5	ANDERSON, JANELLE R. et al., "Fabrication Of Topologically Complex Three-Dimensional Microfluidic Systems In PDMS By Rapid Prototyping," Analytical Chemistry, Vol. 72, No. 14, pp. 3158-3164, July 15, 2000		
	C6	ANDERSON, ROLFE C. et al., "Microfluidic Biochemical Analysis System," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 477-480, June 16-19, 1997		
	C7	ANGELL, JAMES B. et al., "Silicon Micromechanical Devices," Scientific American, pp. cover, 44-55, April 1983		
	C8	ARMANI, DENIZ et al., "Re-Configurable Fluid Circuits By PDMS Elastomer Micromachining," IEEE Int. Conf. Micro Electro Mech. Syst. Tech. Digest, Vol. 12, pp. 222-227, 1999		
	C9	BALLANTYNE, J. P. et al., "Selective Area Metallization By Electron-Beam Controlled Direct Metallic Deposition," J. Vac. Sci. Technol., Vol. 10, No. 6, pp. 1094-1097, November 1973		
	C10	BENARD, W. L. et al., "A Titanium-Nickel Shape-Memory Alloy Actuated Micropump," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 361-364, June 16-19, 1997		
	C11	BLOOMSTEIN, T. M. et al., "Laser-Chemical Three-Dimensional Writing For Microelectromechanics And Application To Standard-Cell Microfluidics," J. Vac. Sci. Technol. B, Vol. 10, No. 6, pp. 2671-2674, November 1992		
	C12	BOUSSE, LUC et al., "Electrokinetically Controlled Microfluidic Analysis Systems," Annu. Rev. Biophys. Biomol. Struct., Vol. 29, pp. 155-181, 2000		
	C13	BRECHTEL, R. et al., "Control Of The Electroosmotic Flow By Metal-Salt-Containing Buffers," Journal of Chromatography A, Vol. 716, pp. 97-105, 1995		
↓	C14	BRYZEK, JANUSZ et al., "Micromachines On The March", IEEE Spectrum, Vol. 31, No. 5, pp. 20-31, May 1994		
EK		BUCHAILLOT, LIONEL et al., "Silicon Nitride Thin Films Young's Modulus Determination By An		
		1997		

Examiner Signature	<i>Eric Keasel</i>	Date Considered	SEP 2006
--------------------	--------------------	-----------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
			Examiner Name	Eric S. Keasel	
Sheet	8	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C16	CALKINS, KATHRYN, "Mycometrix: Rubber Chips," BioCentury, 2 pages, October 16, 2000		
↑	C17	CHAN, JASON H. et al., "Microfabricated Polymer Devices For Automated Sample Delivery Of Peptides For Analysis By Electrospray Ionization Tandem Mass Spectrometry," Analytical Chemistry, Vol. 71, No. 20, pp. 4437-4444, October 15, 1999		
	C18	CHIANG, YUH-MIN et al., "Characterizing The Process Of Cast Molding Microfluidic Systems," SPIE, Vol. 3877, pp. 303-311, September 1999		
	C19	CHIU, DANIEL T. et al., "Patterned Deposition Of Cells And Proteins Onto Surfaces By Using Three-Dimensional Microfluidic Systems," PNAS, Vol. 97, No. 6, pp. 2408-2413, March 14, 2000		
	C20	CHOU, HOU-PU et al., "A Microfabricated Device For Sizing And Sorting DNA Molecules," Proc. Natl. Acad. Sci., Vol. 96, pp. 11-13, January 1999		
	C21	CHOU, HOU-PU et al., "A Microfabricated Rotary Pump," Biomedical Microdevices, Vol. 3, No. 4, pp. 323-330, 2001		
	C22	CHOU, HOU-PU et al., "Integrated Elastomer Fluidic Lab-On-A-Chip-Surface Patterning And DNA Diagnostics," Proceedings of the Solid State Actuator and Sensor Workshop, Hilton Head, South Carolina, 4 pages, 2000		
	C23	CHOU, HOU-PU et al., "Multiple Disease Diagnostics On A Single Chip," Biophysics Lab, Caltech, pp. 1-4, March 1, 2000		
	C24	DELAMARCHE, EMMANUEL et al., "Patterned Delivery Of Immunoglobulins To Surfaces Using Microfluidic Networks," Science, Vol. 276, pp. 779-781, May 2, 1997		
	C25	DHARMATILLEKE, SAMAN et al., "Three-Dimensional Silicone Device Fabrication And Interconnection Scheme For Microfluidic Applications Using Sacrificial Wax Layers," Micro-Electro-Mechanical Systems (MEMS), Vol. 2, pp. 413-418, 2000		
	C26	DUFFY, DAVID C. et al., "Patterning Electroluminescent Materials With Feature Sizes As Small As 5µm Using Elastomeric Membranes As Masks For Dry Lift-Off," Advanced Materials, Vol. 11, No. 7, pp. 546-552, 1999		
	C27	DUFFY, DAVID C. et al., "Rapid Prototyping Of Microfluidic Switches In Poly(dimethyl siloxane) And Their Actuation By Electro-Osmotic Flow," J. Micromech. Microeng., Vol. 9, pp. 211-217, 1999		
	C28	DUFFY, DAVID C. et al., "Rapid Prototyping Of Microfluidic Systems In Poly(dimethylsiloxane)," Analytical Chemistry, Vol. 70, No. 23, pp. 4974-4984, December 1, 1998		
	C29	EFFENHAUSER, CARLO S. et al., "Integrated Capillary Electrophoresis On Flexible Silicone Microdevices: Analysis Of DNA Restriction Fragments And Detection Of Single DNA Molecules On Microchips," Analytical Chemistry, Vol. 69, No. 17, pp. 3451-3457, September 1, 1997		
	EK	C30	EFFENHAUSER, CARLO S. et al., "Integrated Chip-Based Capillary Electrophoresis," Electrophoresis, Vol. 18, pp. 2203-2213, 1997	

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
-----------------------	--------------------	--------------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
Examiner Name	Eric S. Keasel			
Attorney Docket Number	20174C-002910US			
Sheet	9	of	16	

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C31	ERICSON, CHRISTER et al., "Electroosmosis- And Pressure-Driven Chromatography In Chips Using Continuous Beds," Analytical Chemistry, Vol. 72, No. 1, pp. 81-87, January 1, 2000		
↑	C32	FAHRENBERG, J. et al., "A Microvalve System Fabricated By Thermoplastic Molding," J. Micromech. Microeng., Vol. 5, pp. 169-171, 1995		
	C33	FETTINGER, J. C. et al., "Stacked Modules For Micro Flow Systems In Chemical Analysis: Concept And Studies Using An Enlarged Model," Sensors and Actuators B, Vol. 17, pp. 19-25, 1993		
	C34	FIGEYS, DANIEL et al., "An Integrated Microfluidics-Tandem Mass Spectrometry System For Automated Protein Analysis," Analytical Chemistry, Vol. 70, No. 18, pp. 3728-3734, September 15, 1998		
	C35	FIGEYS, DANIEL et al., "Nanoflow Solvent Gradient Delivery From A Microfabricated Device For Protein Identifications By Electrospray Ionization Mass Spectrometry," Analytical Chemistry, Vol. 70, No. 18, pp. 3721-3727, September 15, 1998		
	C36	FOLCH, A. et al., "Molding Of Deep Polydimethylsiloxane Microstructures For Microfluidics And Biological Applications," Journal of Biomechanical Engineering, Vol. 121, pp. 28-34, February 1999		
	C37	FU, ANNE Y. et al., "A Microfabricated Fluorescence-Activated Cell-Sorter," Nature Biotechnology, Vol. 17, pp. 1109-1111, November 1999		
	C38	GALAMBOS, PAUL et al., "Electrical And Fluidic Packaging Of Surface Micromachined Electro-Microfluidic Devices," 8 pages, no date		
	C39	GÁO, JUN et al., "Integrated Microfluidic System Enabling Protein Digestion, Peptide Separation, And Protein Identification," Analytical Chemistry, Vol. 73, No. 11, pp. 2648-2655, June 1, 2001		
	C40	GASS, V. et al., "Integrated Flow-Regulated Silicon Micropump," Sensors and Actuators A, Vol. 43, pp. 335-338, 1994		
	C41	GERLACH, TORSTEN, "Pumping Gases By A Silicon Micro Pump With Dynamic Passive Valves," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 357-360, June 16-19, 1997		
	C42	GOLL, C. et al., "Microvalves With Bistable Buckled Polymer Diaphragms," J. Micromech. Microeng., Vol. 6, pp. 77-79, 1996		
	C43	GRAVESEN, PETER et al., "Microfluidics-A Review," J. Micromech. Microeng., Vol. 3, pp. 168-192, 1993		
	C44	GREENE, CHANA, "Characterizing The Properties Of PDMS," pp. 1-11, Summer 2000		
P	C45	GUÉRIN, L. J. et al., "Simple And Low Cost Fabrication Of Embedded Micro-Channels By Using A New Thick-Film Photoplastic," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 1410-1413, June 16-19, 1997		
EK	C46	HARRISON, D. JED et al., "Micromachining A Miniaturized Capillary Electrophoresis-Based Chemical Analysis System On A Chip," Science, Vol. 261, pp. 895-897, August 13, 1993		

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
--------------------	--------------------	-----------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	10/045,132		
		Filing Date	October 23, 2001		
		First Named Inventor	B. Scott Driggs		
		Art-Unit	3754		
		Examiner Name	Eric S. Keasel		
Sheet	10	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EK	C47	HENION, JACK et al., "Capillary Electrophoresis/Mass Spectrometry: From One Meter Capillaries To Chip-Based Devices," 2 pages, 1999	
↑	C48	HICKS, JENNIFER, "Genetics And Drug Discovery Dominate Microarray Research," R&D Magazine, pp. 28-33, February 1999	
	C49	HOFMANN, OLIVER et al., "Modular Approach To Fabrication Of Three-Dimensional Microchannel Systems In PDMS - Application To Sheath Flow Microchips," Lab on a Chip, Vol. 1, pp. 108-114, 2001	
	C50	HOPFGARTNER, GERARD et al., "Exact Mass Measurement Of Product Ions For The Structural Elucidation Of Drug Metabolites With A Tandem Quadrupole Orthogonal-Acceleration Time-Of-Flight Mass Spectrometer," Journal of The American Society for Mass Spectrometry, Vol. 10, pp. cover, 1305-1314, December 1999	
	C51	HORN, HOWARD, "Lab Chips Sector: Microtechnologies Are Changing Healthcare And More," Life Sciences, pp. 19-21, March 20, 2001	
	C52	HORNBECK, LARRY J. et al., "Bistable Deformable Mirror Device," Spatial Light Modulators and Applications 1988 Technical Digest Series, Vol. 8, Postconference Edition, pp. cover, 107-110, June 15-17, 1988	
	C53	HOSOKAWA, KAZUO et al., "Droplet-Based Nano/Picoliter Mixer Using Hydrophobic Microcapillary Vent," 1999 IEEE International Conference on Micro Electro Mechanical Systems, Technical Digest, pp. 388-393, 1999	
	C54	HOSOKAWA, KAZUO et al., "Handling Of Picoliter Liquid Samples In A Poly(dimethylsiloxane)-Based Microfluidic Device," Analytical Chemistry, Vol. 71, No. 20, pp. 4781-4785, October 15, 1999	
	C55	IKUTA, KOJI et al., "Three Dimensional Micro Integrated Fluid Systems (MIFS) Fabricated By Stereo Lithography," IEEE, pp. 1-6, 1994	
	C56	JACOBSON, STEPHEN C. et al., "High-Speed Separations On A Microchip," Analytical Chemistry, Vol. 66, No. 7, pp. 1114-1118, April 1, 1994	
	C57	JACOBSON, STEPHEN C. et al., "Microfluidic Devices For Electrokinetically Driven Parallel And Serial Mixing," Analytical Chemistry, Vol. 71, No. 20, pp. 4455-4459, October 15, 1999	
	C58	JERMAN, HAL, "Electrically-Activated, Normally-Closed Diaphragm Valves," Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, pp. cover, 1045-1048, 1991	
	C59	JO, BYUNG-HO et al., "Fabrication Of Three-Dimensional Microfluidic Systems By Stacking Molded Polydimethylsiloxane (PDMS) Layers" SPIE, Vol. 3877, pp. 222-229, September 1999	
↓	C60	JO, BYUNG-HO et al., "Three-Dimensional Micro-Channel Fabrication In Polydimethylsiloxane (PDMS) Elastomer," Journal of Microelectromechanical Systems, Vol. 9, No. 1, pp. 76-81, March 2000	
EK	C61	JUNG, D. R. et al., "Chemical And Physical Interactions At Metal/Self-Assembled Organic Monolayer Interfaces," pp. 1-54, 1994	

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
-----------------------	--------------------	--------------------	------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>			Complete If Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
			Examiner Name	Eric S. Keasel	
Sheet	11	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EK ↑	C82	KAGAN, C. R., "Organic-Inorganic Hybrid Materials As Semiconducting Channels In Thin-Film Field-Effect Transistors," Science, Vol. 286, pp. 945-947, October 29, 1999	
	C83	KAPUR, RAVI et al., "Fabrication And Selective Surface Modification Of 3-Dimensionally Textured Biomedical Polymers From Etched Silicon Substrates," Journal of Biomedical Materials Research, Vol. 33, pp. 205-216, 1996	
	C84	KAWANO, YASUSHI et al., "Rapid Isolation And Identification Of Staphylococcal Exoproteins By Reverse Phase Capillary High Performance Liquid Chromatography-Electrospray Ionization Mass Spectrometry," FEMS Microbiology Letters, Vol. 189, pp. 103-108, 2000	
	C85	KENIS, PAUL J. A. et al., "Microfabrication Inside Capillaries Using Multiphase Laminar Flow Patterning," Science, Vol. 285, pp. 83-85, July 2, 1999	
	C86	KHOO, MELVIN et al., "A Novel Micromachined Magnetic Membrane Microfluid Pump," pp. 1-4, no date	
	C87	KIM, ENOCH et al., "Micromolding In Capillaries: Applications In Materials Science," J. Am. Chem. Soc., Vol. 118, No. 24, pp. 5722-5731, 1996	
	C88	KIM, ENOCH et al., "Polymer Microstructures Formed By Moulding In Capillaries," Nature, Vol. 376, pp. 581-584, August 17, 1995	
	C89	KIRK-OTHMER, "Condse Encyclopedia of Chemical Technology," John Wiley & Sons, 5 pages, no date	
	C70	KOPP, MARTIN U. et al., "Chemical Amplification: Continuous-Flow PCR On A Chip," Science, Vol. 280, pp. 1046-1048, May 15, 1998	
	C71	KUHN, LAWRENCE et al., "Silicon Charge Electrode Array For Ink Jet Printing," IEEE Transactions on Electron Devices, Vol. ED-25, No. 10, pp. 1257-1260, October 1978	
	C72	KUMAR, AMIT et al., "Features Of Gold Having Micrometer To Centimeter Dimensions Can Be Formed Through A Combination Of Stamping With An Elastomeric Stamp And An Alkanethiol 'Ink' Followed By Chemical Etching," Appl. Phys. Lett., Vol. 63, No. 14, pp. 2002-2004, October 4, 1993	
	C73	KUMAR, AMIT et al., "Patterning Self-Assembled Monolayers: Applications In Materials Science," Langmuir, Vol. 10, pp. 1498-1511, 1994	
	C74	LAGALLY, ERIC T. et al., "Fully Integrated PCR-Capillary Electrophoresis Microsystem For DNA Analysis," Lab On A Chip, Vol. 1, pp. 102-107, 2001	
	C75	LAGALLY, ERIC T. et al., "Monolithic Integrated Microfluidic DNA Amplification And Capillary Electrophoresis Analysis System," Sensors and Actuators B, Vol. 63, pp. 138-146, 2000	
	C76	LAGALLY, E. T. et al., "Single-Molecule DNA Amplification And Analysis In An Integrated Microfluidic	
EK	C77	LAMMERINK, T. S. J. et al., "Modular Concept For Fluid Handling Systems," IEEE, pp. 389-394, 1996	

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
--------------------	--------------------	-----------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known		
			Application Number	10/045,132	
			Filing Date	October 23, 2001	
			First Named Inventor	B. Scott Driggs	
			Art Unit	3754	
			Examiner Name	Eric S. Keasel	
Sheet	12	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C78	LAZAR, IULIA M. et al., "Novel Microfabricated Device For Electrokinetically Induced Pressure Flow And Electrospray Ionization Mass Spectrometry," Journal of Chromatography A, Vol. 892, pp. 195-201, 2000		
↑	C79	LI, JIANJUN et al., "Integration Of Microfabricated Devices To Capillary Electrophoresis-Electrospray Mass Spectrometry Using A Low Dead Volume Connection: Application To Rapid Analyses Of Proteolytic Digests," Analytical Chemistry, Vol. 71, No. 15, pp. 3036-3045, August 1, 1999		
	C80	LI, PAUL C. H. et al., "Transport, Manipulation, And Reaction Of Biological Cells On-Chip Using Electrokinetic Effects," Analytical Chemistry, Vol. 69, No. 8, pp. 1564-1568, April 15, 1997		
	C81	LICKLIDER, LARRY et al., "A Micromachined Chip-Based Electrospray Source For Mass Spectrometry," Analytical Chemistry, Vol. 72, No. 2, pp. 367-375, January 15, 2000		
	C82	LIN, L. Y. et al., "Free-Space Micromachined Optical Switches For Optical Networking," IEEE Journal of Selected Topics in Quantum Electronics, Vol. 5, No. 1, pp. 4-9, January 1999		
	C83	LIN, YUEHE et al., "Laser Micromachined Isoelectric Focusing Device On Polymer Substrate For Electrospray Mass Spectrometry," SPIE, Vol. 3677, pp. 28-35, September 1999		
	C84	LIU, HANGHUI et al., "Development Of Multichannel Devices With An Array Of Electrospray Tips For High-Throughput Mass Spectrometry," Analytical Chemistry, Vol. 72, No. 14, pp. 3303-3310, July 15, 2000		
	C85	LÖTTERS, J C et al., "The Mechanical Properties Of The Rubber Elastic Polymer Polydimethylsiloxane For Sensor Applications," J. Micromech. Microeng., Vol. 7, pp. 145-147, 1997		
	C86	LUCY, CHARLES A. et al., "Characterization Of The Cationic Surfactant Induced Reversal Of Electroosmotic Flow In Capillary Electrophoresis," Anal. Chem., Vol. 68, pp. 300-305, 1996		
	C87	MALUF, N., "An Introduction To Microelectromechanical Systems Engineering," Artech House Publishers, Boston London, pp. 42-45, December 1999		
	C88	MANZ, A. et al., "Micromachining Of Monocrystalline Silicon And Glass For Chemical Analysis Systems," Trends In Analytical Chemistry, Vol. 10, No. 5, pp. 144-149, 1991		
	C89	MARSHALL, SID, "Fundamental Changes Ahead For Lab Instrumentation," R&D Magazine, 5 pages, February 1999		
	C90	MARSILI, RAY, "Lab-On-A-Chip Poised To Revolutionize Sample Prep," R&D Magazine, 5 pages, February 1999		
	C91	MCDONALD, J. COOPER et al., "Fabrication Of Microfluidic Systems In Poly(dimethylsiloxane)," Electrophoresis, Vol. 21, pp. 27-40, 2000		
	↓	C92	MULLER, RICHARD S. et al., "Surface-Micromachined Microoptical Elements And Systems," Proceedings of the IEEE, Vol. 86, No. 8, pp. 1705-1720, August 1998	
	EK	C93	NEW OBJECTIVE, INC., "What Is Electrospray," www.newobjective.com/electrospray/electrospray.html , 4 pages, 1999	

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
-----------------------	--------------------	--------------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>			Complete if Known	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
Examiner Name	Eric S. Keasel			
Attorney Docket Number	20174C-002910US			
Sheet	13	of	16	

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C94	OLESCHUK, RICHARD D. et al., "Analytical Microdevices For Mass Spectrometry," Trends In Analytical Chemistry, Vol. 19, No. 6., pp. 379-388, 2000		
↑	C95	OLSSON, ANDERS et al., "Simulation Studies Of Diffuser And Nozzle Elements For Valve-Less Micropumps," Transducers '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, Illinois, pp. 1039-1042, June 16-19, 1997		
	C98	PETHIG, RONALD et al., "Applications Of Dielectrophoresis In Biotechnology," Tibtech, Vol. 15, pp. 426-432, October 1997		
	C97	PROTANA website, "NanoES Products," www.protana.com/products/default.asp, 3 pages, September 19, 2000		
	C98	QIN, DONG et al., "Elastomeric Light Valves," Adv. Mater., Vol. 9, No. 5, pp. 407-410, 1997		
	C99	QIN, DONG et al., "Photolithography With Transparent Reflective Photomasks," J. Vac. Sci. Technol. B, Vol. 16, No. 1, pp. 98-103, January 1998		
	C100	QUAKE, STEPHEN R. et al., "From Micro- To Nanofabrication With Soft Materials," Science, Vol. 290, pp. 1536-1540, November 24, 2000		
	C101	RAPP, R. et al., "LIGA Micropump For Gases And Liquids," Sensors and Actuators A, Vol. 40, pp. 57-61, January 1994		
	C102	ROYLANCE, LYNN MICHELLE et al., "A Batch-Fabricated Silicon Accelerometer," IEEE Transactions on Electron Devices, Vol. ED-26, No. 12, pp. 1911-1917, December 1979		
	C103	Sandia National Laboratories, "Electro Microfluidic Dual In-Line Package (EMDIP)," 2 pages, no date		
	C104	SANJOH, AKIRA et al., "Spatiotemporal Protein Crystal Growth Studies Using Microfluidic Silicon Devices," Journal of Crystal Growth, Vol. 198, pp. 691-702, 1999		
	C105	SCHASFOORT, RICHARD B. M. et al., "Field-Effect Flow Control For Microfabricated Fluidic Networks," Science, Vol. 286, pp. 942-945, October 29, 1999		
	C106	SCHOMBURG, W. K. et al., "Fabrication Of Polymer Microcomponents With The AMANDA-Process," New Materials and Directions, Eurosensors XII, pp. 711-714, September 13-16, 1998		
	C107	SCHUELLER, OLIVIER J. A. et al., "Fabrication Of Glassy Carbon Microstructures By Soft Lithography," Sensors and Actuators A, Vol. 72, pp. 126-139, 1999		
	C108	SHEVCHENKO, ANDREJ et al., "Rapid 'de Novo' Peptide Sequencing By A Combination Of Nanoelectrospray, Isotopic Labeling And A Quadrupole/Time-Of-Flight Mass Spectrometer," Rapid Communications In Mass Spectrometry, Vol. 11, pp. 1015-1024, 1997		
0	C109	SHINOHARA, JUN et al., "A High Pressure-Resistance Micropump Using Active And Normally-Closed Valves," IEEE pp. 85-91 2000		
EK	C110	SHOJI, SHUICHI, "Fluids For Sensor Systems," Topics In Current Chemistry, Vol. 194, pp. 163-188, 1998		

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
-----------------------	--------------------	--------------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
Examiner Name	Eric S. Keasel			
Attorney Docket Number	20174C-002910US			
Sheet	14	of	16	

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
ETC	C111	SHOJI, SHUICHI et al., "Smallest Dead Volume Microvalves For Integrated Chemical Analyzing Systems," Transducers '91, 1991 International Conference on Solid-State Sensors and Actuators, San Francisco, California, pp. cover, 1052-1055, 1991		
↑	C112	SMITS, J.G., "Piezoelectric Micropump With Three Valves Working Peristaltically," Sensors and Actuators, Vol. A21-A23, pp. 203-208, 1990		
	C113	SOHN, L. L. et al., "Capacitance Cytometry: Measuring Biological Cells One By One," PNAS, Vol. 97, No. 20, pp. 10687-10690, September 26, 2000		
	C114	THOMPSON, L. F. et al., "Introduction To Microlithography," 185th Meeting of the American Chemical Society, Seattle, WA, pp. 2 cover pages, 1-13, March 20-25, 1983.		
	C115	THORSEN, TODD et al., "Dynamic Pattern Formation In A Vesicle-Generating Microfluidic Device," Physical Review Letters, Vol. 86, No. 18, pp. 4163-4166, April 30, 2001		
	C116	TUFTE, O. N. et al., "Silicon Diffused-Element Piezoresistive Diaphragms," Journal of Applied Physics, Vol. 33, No. 11, pp. 3322-3327, November 1962		
	C117	Ullmann's Encyclopedia of Industrial Chemistry, Sections 6 to 6.3, Topic: Carbon Black, Sixth Edition, 7 pages, 1999		
	C118	UNGER, MARC A. et al., "Monolithic Microfabricated Valves And Pumps By Multilayer Soft Lithography," Science, Vol. 288, pp. 113-116, April 7, 2000		
	C119	VAN DE POL, F.C.M. et al., "A Thermo-Pneumatic Actuation Principle For A Microminiature Pump And Other Micromechanical Devices," Sensors and Actuators, Vol. 17, Nos. 1-2, pp. 139-143, May 3, 1989		
	C120	VAN DE POL, F.C.M. et al., "Micro Liquid Handling Devices - A Review," Micro Systems Technologies, Vol. 90, pp. 799-805, 1990		
	C121	VAN DEN BERG, A. et al., "Micro Total Analysis Systems," Proceedings of the μTAS '94 Workshop, University of Twente, The Netherlands, 17 pages, November 21-22, 1994		
	C122	VERPOORTE, ELISABETH M. J. et al., "Three-Dimensional Micro Flow Manifolds For Miniaturized Chemical Analysis Systems," J. Micromech. Microeng., Vol. 7, pp. 246-256, 1994		
	C123	VIEIDER, CHRISTIAN et al., "A Pneumatically Actuated Micro Valve With A Silicon Rubber Membrane For Integration With Fluid Handling Systems," Transducers '95, 8th International Conference on Solid-State Sensors and Actuators and Eurosensors IX, Stockholm, Sweden, pp. 284-286, June 25-29, 1995		
↪	C124	WASHIZU, MASAO et al., "Molecular Dielectrophoresis Of Biopolymers," IEEE Transactions on Industry Applications, Vol. 30, No. 4, pp. 835-843, July 1994		
1-K	C125	WIEGL, BERNHARD H., "Microfluidics-Based Lab-On-A-Chip Systems," IVD Technology Magazine, 8 pages, November/December 2000		

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
-----------------------	--------------------	--------------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete If Known	
			Application Number	10/045,132
			Filing Date	October 23, 2001
			First Named Inventor	B. Scott Driggs
			Art Unit	3754
Examiner Name	Eric S. Keasel			
Attorney Docket Number	20174C-002910US			
Sheet	15	of	16	

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
EK	C126	WHITESIDES, GEORGE M. et al., "Flexible Methods For Microfluidics," Physics Today, pp. 42-48, June 2001		
	C127	WHITESIDES, GEORGE M. et al., "Soft Lithography In Biology And Biochemistry," Annu. Rev. Biomed. Eng., Vol. 3, pp. 335-373, 2001		
	C128	WILBUR, JAMES L. et al., "Lithographic Molding: A Convenient Route To Structures With Sub-Micrometer Dimensions," Adv. Mater., Vol. 7, No. 7, pp. 649-652, 1995		
	C129	WILM, MATTHIAS et al., "Femtomole Sequencing Of Proteins From Polyacrylamide Gels By Nano-Electrospray Mass Spectrometry," Nature, Vol. 379, pp. 466-469, February 1, 1996		
	C130	XIA, YOUNAN et al., "Complex Optical Surfaces Formed By Replica Molding Against Elastomeric Masters," Science, Vol. 273, pp. 347-349, July 19, 1996		
	C131	XIA, YOUNAN et al., "Micromolding Of Polymers In Capillaries: Applications In Microfabrication," Chem. Mater., Vol. 8, No. 7, pp. 1559-1566, 1996		
	C132	XIA, YOUNAN et al., "Reduction In The Size Of Features Of Patterned SAMs Generated By Microcontact Printing With Mechanical Compression Of The Stamp," Adv. Mater., Vol. 7, No. 5, pp. 471-473, 1995		
	C133	XIA, YOUNAN et al., "Soft Lithography," Angew. Chem. Int. Ed., Vol. 37, pp. 551-575, 1998		
	C134	XU, BING et al., "Making Negative Poisson's Ratio Microstructures By Soft Lithography," Adv. Mater., Vol. 11, No. 14, pp. 1186-1189, 1999		
	C135	XU, JINGDONG et al., "Room-Temperature Imprinting Method For Plastic Microchannel Fabrication," Analytical Chemistry, Vol. 72, No. 8, pp. 1930-1933, April 15, 2000		
	C136	XUE, QIFENG et al., "Integrated Multichannel Microchip Electrospray Ionization Mass Spectrometry: Analysis Of Peptides From On-Chip Tryptic Digestion of Melittin," Rapid Communications In Mass Spectrometry, Vol. 11, 1253-1256, 1997		
	C137	XUE, QIFENG et al., "Multichannel Microchip Electrospray Mass Spectrometry," Analytical Chemistry, Vol. 69, No. 3, pp. 426-430, February 1, 1997		
	C138	YANG, XING et al., "A Low Power MEMS Silicone/Parylene Valve," Solid-State Sensor and Actuator Workshop, Hilton Head Island, South Carolina, 4 pages, June 7-11, 1998		
	C139	YANG, XING et al., "A MEMS Thermopneumatic Silicone Membrane Valve," IEEE 10th Annual International Workshop of Micro Electro Mechanical Systems, Nagoya, Japan, pp. cover, 114-118, January 26-30, 1997		
	C140	YAZDI, NAVID et al., "Micromachined Inertial Sensors," Proceedings of IEEE, Vol. 86, No. 8, pp. 1640-1659, August 1998		
EK	C141	Journal of Biomechanical Engineering, Vol. 121, pp. 2-6, February 1999		

Examiner Signature	<i>Eric Keasel</i>	Date Considered	1 SEP 2006
--------------------	--------------------	-----------------	------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>		Complete If Known			
		Application Number	10/045,132		
		Filing Date	October 23, 2001		
		First Named Inventor	B. Scott Driggs		
		Art Unit	3754		
		Examiner Name	Eric S. Keasel		
Sheet	16	of	16	Attorney Docket Number	20174C-002910US

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
EK	C142	ZENGERLE, R. et al., "A Micro Membrane Pump With Electrostatic Actuation," Micro Electro Mechanical Systems '92, Travemünde, Germany, pp. 19-24, February 4-7, 1992	
EK	C143	ZENGERLE, R. et al., "Performance Simulation Of Microminiaturized Membrane Pumps," 7th International Conference on Solid-State Sensors and Actuators, Yokohama, Japan, pp. 2 cover pages, 106-109, June 7-10, 1993	
EK	C144	ZHANG, B. et al., "Microfabricated Devices For Capillary Electrophoresis-Electrospray Mass Spectrometry," Analytical Chemistry, Vol. 71, No. 15, pp. 3258-3264, August 1, 1999	

60700112 v1

Examiner Signature		Date Considered	15 SEP 2006
-----------------------	---	--------------------	-------------

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.